Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

November 23, 2009

Dean K. Matsuura
Manager
Regulatory Affairs

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2009-0108 – Proposed Amendments to the IRP Framework
Hawaiian Electric Companies Responses to NRRI Comments

On November 3, 2009, in accordance with the *Order Approving the Stipulated Procedural Order, as Modified*, filed on September 23, 2009 in the subject docket, the Public Utilities Commission ("Commission") issued a paper entitled "Clean Energy Scenario Planning: Thoughts on Creating a Framework" prepared by the Commission's consultant, National Regulatory Research Institute ("NRRI").

The paper provides thoughts on the creation of a framework for Clean Energy Scenario Planning ("CESP"), acknowledging that the new clean energy goals of the State of Hawaii and the complex task of coordinating multiple efforts and priorities warrants reconsideration of the Framework for Integrated Resource Planning ("IRP Framework") adopted in 1992.

NRRI states that while the parties in the subject docket have sought to revise the IRP Framework to reflect a new CESP process, a question is raised on whether the IRP process is sufficient to achieve State clean energy goals, or whether a new process is needed. NRRI takes the position that the concept of scenario planning is needed.[1]

Additionally, the paper provides a discussion of the definition of scenario planning - distinguishing it from IRP, provides a description of the main steps in a CESP framework, and addresses the question of who are appropriate participants in the development of a new CESP process. The paper also invites the parties to provide their comments on the paper, and in their respective Final Statement of Positions due in December 2009, address questions posed regarding the proposed CESP framework.

[1] See page 1, *Clean Energy Scenario Planning: Thoughts on Creating a Framework* (NRRI).

The Hawaiian Electric Companies' have reviewed the NRRI paper and respectfully provide the following comments on the topics discussed.[2]

Scenario Planning versus Integrated Resource Planning

In Section IV of the paper (page 10), NRRI recommends that the parties' provide comments that address whether the uncertainties facing Hawaii's clean energy future warrant the use of scenario planning or an integrated planning approach constrained by clean energy mandates.

Hawaii electric utility planning's uncertainty warrants a scenario planning approach over a resource optimization approach typically employed by integrated resource planning processes to identify resource plan needs and development of an appropriate action plan.

Planning uncertainty is greater today than in 1992 when the IRP framework was developed, for several reasons. First, there are far greater resource options – more supply-side technologies at the central-station and distributed level, and more demand-side options in the form of new energy efficiency and conservation program designs. Second, there are more load management and demand response programs that change load shapes in a predetermined or dynamic fashion. Third, energy storage is increasingly becoming a promising energy facet. Fourth, many planning assumptions and inputs are more difficult to forecast. Assumptions such as fuel prices, technology cost and efficiency, and customer electricity use are more dynamic than in the past. Lastly, regulatory, environmental and legislative energy policy directives that impact energy plans are more common today, in some cases, defining new energy directives that must be met over fairly short time horizons.

As noted in the NRRI paper, the goal for scenario planning is to identify and analyze various scenarios, and seek solutions that would work well under the varying scenarios, and may not be optimal for any specific scenario. The decisions made in a scenario planning process would provide "good results under a wide range of scenarios." The Hawaiian Electric Companies agree with these goals for scenario planning.

The Hawaiian Electric Companies discuss differences between integrated resource planning, as contemplated by the 1992 IRP Framework, and clean energy scenario planning, as incorporated in the proposed CESP framework, in their Preliminary Statement of Position.

Number of Scenarios to be Examined

NRRI notes that effective scenario planning focuses on a small set of scenarios that cover a wide-range of possible futures. This provides a reasonable balance against the volume of analysis, and the time impacts of evaluating more scenarios. Quoting existing research,

[2] The "Hawaiian Electric Companies" are Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited.

NRRI states that three dimensions and eight scenarios represent the practical limit for scenario planning to be efficient and transparent.

The Hawaiian Electric Companies agree that there are practical limits on the number of scenarios that can be considered if scenario planning is to be efficient and transparent. Thus, as a practical matter, it may not be able to create realistic scenarios that define **all** plausible futures. However, it will be possible to redefine the scenarios in subsequent planning cycles.

Steps in Applying a CESP Framework

NRRI sets forth a five-step scenario planning framework for consideration in developing proposals for a CESP framework:

- Step 1 – Define the question facing decision makers.
- Step 2 – Define the starting point for developing alternative scenarios.
- Step 3 – Explore the unexpected, identify key drivers, and develop scenarios.
- Step 4 – Assess potential actions, make decisions.
- Step 5 – Monitor conditions.

Assuming that CESP includes as a first step, the defining of the questions facing decision makers, should the question be identified and be part of the framework, or should the framework include a step to require identification of an appropriate question as part of the CESP process? The latter is preferred since uncertainties are present and issues or goals remain dynamic in nature. Questions should be identified in each CESP process and the need for such a step in the CESP process should be part of the CESP framework.

Appropriate Participants in a CESP Process

The paper identifies a number of participants that would be appropriate in a CESP process. These include the Public Benefits Fee Administrator, the Energy Resource Coordinator, the Renewable Energy Facilitator, a representative from the United States Department of Energy, utility experts, resource developers, community groups, and economic development experts. With such a diverse group, NRRI notes that a neutral facilitator seems necessary.

The role of the facilitator should be one where, in addition to facilitating meetings, the facilitator also functions as an Independent Observer ("IO") and has responsibility for such tasks as reporting to the Commission on a regular basis and providing recommendations to seek Commission decisions in intermediate issues along the CESP process rather than waiting for those issued to be addressed during the hearing process. IO-like functionality such as the functions described above can be of benefit to a CESP process, particularly in facilitating the timely execution of the CESP process and to facilitate timely final decisions/approvals by the Commission of a filed CESP plan by the utility.

NRRI also notes that the participants in a CESP process should include all of Hawaii's electric utilities, allowing the Commission to adjust the CESP framework to accommodate differences between investor-owned and cooperatives utilities. In addition, NRRI feels that the gas, water and sewage utilities regulated by the Commission should be a part of the CESP process. What is not clear, however, is whether NRRI is suggesting that electricity, water, gas, and sewage, be a part of a single CESP, or whether each utility would conduct its own CESP process under a single CESP framework.

The inclusion of regulated water and sewer utilities would introduce unnecessary complexities into the CESP process, without commensurate benefits. County water and sewer systems, which serve most of the State's residents, are not regulated by the Commission. The small water and sewer systems that are regulated by the Commission do not have the resources to participate in the CESP process.

In addition, inclusion of the regulated gas utility would raise additional issues. The gas utility has both regulated and unregulated gas service, and faces competition from other unregulated gas operations. There is no Renewable Portfolio Standard ("RPS") law applicable to gas services at this time, and there currently is no clean energy agreement with the gas utility as a party.

Further, it is not clear whether a single CESP process would cover multiple islands/entire state, or whether individual CESP processes would be conducted for each island. These decisions will impact key aspects such as defining the questions facing decision makers, the identification of scenarios to evaluate, and assessments made for each scenario and resource options selected.

A statewide CESP process would tend to work better in theory than it might in process. The Hawaiian Electric Companies must meet the RPS on a consolidated basis – thus, it makes sense for them to coordinate their CESP efforts (particularly with respect to technical issues). However, the Advisory Group and public input processes are more effective on a company-specific basis, and the unique concerns and issues of the various islands would not be effectively considered in a statewide process.

Other Comments

In developing the comments offered herein, the Hawaiian Electric Companies would like to offer a discussion on whether scenario planning, selection of "no-regret" resource options and compliance with competitive bidding framework will result in a CESP action plan that provides the basis for things such as General Order No. 7 capital project applications, or establishing technical parameters for competitive bidding processes.

The resulting CESP action plan could provide such basis, but only to a certain extent. Project or program specifics (parameters or attributes such as cost, schedule, location, specific

operating parameters) cannot be fully defined in a CESP process, and such specifics would be provided in a General Order No. 7 project application or identified in the outcome of a generation RFP process. Instead, CESP action plans can identify the need to take action, and general or indicative information with respect to parameters or attributes.

The proposed CESP framework recognizes that "decision making" is not confined to the CESP process, and decisions to add resources will be a function of the response of the energy market, customers and other entities to processes (such as competitive bidding) initiated by the utility, as much as or more so than of the planning process.

The NRRI paper also notes that a scenario may result from gas-electric interaction where the scenario is defined by an abundance of gas. This may have planners find strategies as switching electric end-uses to gas or using peak-load gas-fired generation to supplement intermittent renewable resources attractive.

The Hawaiian Electric Companies note that in the Commission's Decision and Order No. 13839[3], the Commission found that fuel substitution demand-side management ("DSM") would not be administratively viable for separately owned electric and gas utilities. Further, there would be an impact upon electric utility rate payers, and a conflict where the electric utility would be promoting a competitor's product under the guise of a DSM program for the electric utility.

The issue of fuel substitution was also raised in the gas utilities' IRP proceeding where the Commission noted that it would be complicated to address whether fuel choice programs are consistent with the objectives of both the gas and electric utilities. To address such issue fairly would give rise to additional issues such as commonality of objectives, analytic mechanisms to be employed, program choices and designs, and the recovery of lost margins and shareholder incentives to the negatively impacted utility.[4]

The findings in Decision and Order No. 13839 and Decision and Order No. 13925 on fuel substitution, was also affirmed in the Commission's Decision and Order No. 14638.[5]

Conclusion

The paper developed by NRRI provides thoughts on creating a CESP framework provides topics that the parties and Commission will continue to have discussion upon in order to develop a CESP framework applicable for energy utilities in Hawaii. The Hawaiian Electric Companies agree with a number of the viewpoints presented by NRRI, and have provided their comments herein. The Hawaiian Electric Companies will continue to work with the parties in the subject docket to discuss these viewpoints, as well as viewpoints or positions of the parties. Together with questions posed by NRRI in Appendix C of the paper,

[3] Decision and Order No. 13839, Docket No. 7257 (Hawaiian Electric Co., Inc. IRP).
[4] Decision and Order No. 13925, Docket No. 7261 (Gasco, Inc. IRP)
[5] See Decision and Order No. 14638, Docket Nos. 94-0010, 94-0011, and 94-0012 (Consolidated).

the discussions between the parties will be reflected in the Hawaiian Electric Companies' Final Statement of Position.

If you have any questions on this matter, please contact Leo Asuncion at 543-4853.

Very truly yours,

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